

BULGARIA ENERGY BRIEF

Bulgaria has been an economy in transition since 1989 and the energy sector has played a key role in the economic and political stability of both the country and the region. The total installed electric power capacity in the country is 12,668 MW and Bulgaria produced 43.886 billion kWh in 2001, an 8 percent increase from 2000. At that present time, Bulgaria has significant excess capacity. In 2001, Bulgaria exported 7 billion kWh to other countries in Southeastern Europe and this figure is expected to increase in 2002 due to a cold winter. For example, electricity production increased 13 percent in December 2001. Bulgaria earned \$150 million last year from electricity exports to neighboring Turkey, Greece, Macedonia, Kosovo and Yugoslavia. Despite increased exports, the government has announced that Bulgaria still has a reserve of 800 million kW/h.

In 2000, as a result of the Energy Act, the Bulgarian energy sector was reorganized into six independent power generators (thermal power plants and the Kozloduy nuclear power plant), a transformed National Electric Company (NEK), and seven distribution companies. While NEK has retained some generating capacity, the new NEK has become the country's primary grid operator and the sole buyer of electricity from the independent power generators as well as the only supplier of electricity to the distribution companies. However, this situation is also expected to change shortly.

The Energy Act was intended to reform the sector and harmonize the country's regulations with the EU Electricity and Gas Directives. The Council of Ministers is expected to finally pass all the regulations outlined in the Energy Act (including recent amendments) by June 2002 with the exception of those regulations related to the opening of the gas market which will be adopted by September 2002. As a result, about 10 percent of the gas and electricity markets will be liberalized by the end of 2002. The Energy Act also revises the authorization process for adding power generation capacity and shifts price and market risks from the state to investors.

NEK's monopoly position in regards to buying and selling power will also end. The newly established Ministry of Energy will no longer allow long-term contracts to be signed solely between NEK and the power producers. The state also intends to end investments in the rehabilitation of power stations and will seek to attract private foreign investment through privatization. Construction of new generators will be facilitated by revisions in the licensing procedures. In summary, the amended Energy Act will create independent power producers who are entitled to sell directly to users.

While Bulgaria currently produces sufficient power for its needs, it is eager to attract foreign investment to update its aging power sector. Approximately 40 % of Bulgaria's generating capacity is scheduled to be retired by 2010. Current foreign investment projects include the Maritza East 1 and 3 coal-fired complexes and the stalled \$300 million 170-MW Gorna Arda hydro cascade project which Bulgaria is developing with Italian investors. This project will rehabilitate the existing dams at the complex and build and operate a new water cascade of three hydropower stations. Bulgaria is also seeking investors for 22 big and 41 small hydro power

stations as well as the full implementation of several district heating sector rehabilitation plans. In addition, by the end of June 2002, the Ministry of Energy intends to sell its electricity distribution facilities followed by its remaining generation plants. These include the Maritza-3, Bobov Dol, Russe, and Varna power plants.

In December 2001 the State Agency for Energy and Energy Resources was transformed into the Ministry of Energy. In addition, an independent State Energy Regulatory Commission has been set up and given authority for issuing licenses and setting prices for electricity, natural gas and district heating. It is expected that by late March 2002 the Bulgarian government will approve a revised National Strategy for Energy Sector Development. While the Energy Strategy is not yet final, the Ministry of Energy has released the following energy reform objectives:

- Creation of proper conditions for energy liberalization and competition
- Abolishment of across the board energy subsidies
- Implementation of a long term price policy
- Improvements in energy inefficiency
- Attraction of the strategic investors and the privatization of power plants and distribution companies
- Establishment of a clear regulatory framework.

Bulgaria has minimal natural gas reserves and low gas consumption - less than 1 Bcf per year. Bulgargas is the country's only gas importer and owner of the 1,380-mile pipeline network and nine compressor stations. The first phase of natural gas privatization will attempt to diversify gas supply and improve the gas transmission infrastructure. Licenses will be issued for developing the low- pressure segment of the market and preparations will begin to enable third-party access to the transmission network. Large gas users will be allowed to contract gas supply directly, including from abroad, depending on current external contractual obligations. In the second phase, privatization of Bulgargas will begin with the selling of shares but with the state retaining control. After 2010, the privatization of Bulgargas is to be completed and Bulgarian gas markets will be fully integrated with the rest of Europe.

In the first phase of coal mining privatization (by the end of 2002), it is planned that unprofitable mines will be closed. The remaining mines will be improved to make them more attractive to investors. The mines will then be privatized in the second phase of privatization. From 2003, budgetary support to the coal sector will be strictly limited to the financing of the technical liquidation of closed pits and environmental rehabilitation.

Bulgaria's nuclear power station, the 3,760 MW Russian designed Kozloduy Nuclear Plant, is located 120 miles north of Sofia. The plant's six reactors (installed between 1974 and 1982) include four 440-MW pressurized water units without safety encasement, and two modern, 1000-MW reactors that have safety enhancements. Bulgaria has spent more than \$100 million on upgrading Kozloduy, including the current Westinghouse project for Units 5 and 6. There is currently an intense debate within Bulgaria as to the schedule for decommissioning Units 1-4. Much of the new investment in Bulgaria's energy sector will depend on when these units are ultimately shut down since a delay in decommissioning the units could subsequently delay

construction of new generating capacity. The cost of electricity from Kozloduy is also relatively cheap and therefore its closure is expected to increase energy prices in Bulgaria and the Balkans by 6-10%. Finally, Bulgaria's accession into the EU is expected to be tied to its decision regarding the continued operation of the nuclear plant. As a result, this issue involves a number of highly sensitive safety, economic and political considerations.